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Tursoy, Turgut

Near East University

10 January 2009

Online at <https://mpra.ub.uni-muenchen.de/98520/>

MPRA Paper No. 98520, posted 09 Feb 2020 15:48 UTC

# **Host Country Reforms and FDI Inflows: Some New Evidences from Turkey**

Turgut Tursoy  
Head of the Department of Banking and Finance  
Near East University

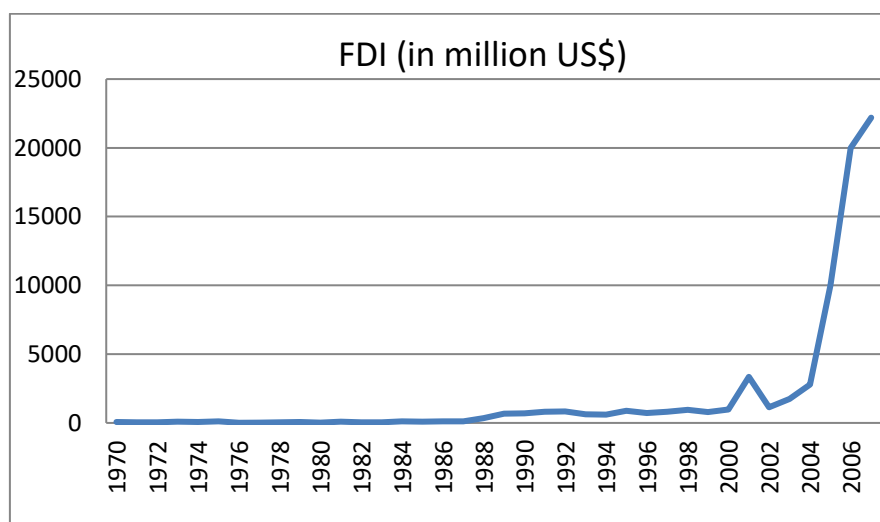
## **Abstract**

This study examines the effects of various policy reforms on foreign direct investment (FDI) flows of Turkey. In this study, policy reforms - including providing a sound macroeconomic environment, substantial economic growth and a well functioning financial system - assumed to led a surge in FDI inflows into Turkey and make it an attractive country for FDI. Using OLS technique for Turkey's data of the period from 1970 to 2007, the study aims to identify the variables that observe the impacts of recent policy reforms on FDI inflows. Thus, macroeconomic variables and political instability, financial liberalisation and crisis episodes indicators are used in the empirical analysis in explaining the FDI inflows. The result indicates that lagged of FDI inflows, market size, stable macroeconomic environment, substantial economic growth have a positive and statistically significant relationship with FDI inflows. But, study results also reveal that, with the existing level of financial development in Turkey, there is no statistically significant relationship between financial development and FDI inflows.

## **Introduction**

Over the past decades, international FDI flows have showed a substantial upward trend promoted by globalization. The financial developments within the blow of financial liberalization across many developing countries in the early 1980s extend the possibility to make more profitable investments and accumulate capital. Financial liberalization provides countries with access to foreign capital and investment opportunities for more efficient allocation of resources. But last decades showed that financial liberalization in developing countries have demonstrated mixed results, because most developing countries after liberalization have experienced severe financial crises. But, it is becoming increasingly clear that all types of capital flows are not creating problems for countries. For instance, FDI is a more desirable form of investment for countries, because this type of capital flow is more stable in situation where there is a crisis episode. Also, it does not run the risk of sudden reversal, in

capital flow, whenever foreign investors change their perception which can directly increase the possibility of financial crises. Consequently, if the FDI flows are more desirable form of investment for countries, it is creating a motivation to investigate the subject of FDI flows. Therefore, this study motivation is to investigate the relationship between FDI inflows and Turkey's past policy reforms of improving the existing investment environment to attract more foreign investment into country. When the past performance of the global FDI flows checked, it can be easily observed that there has been a rapid and steady growth in global FDI flows since the late 1980s. Also, FDI inflows to Turkey have been increased substantially in the last third decades. For instance, there was a sudden appearance of a large volume of FDI into Turkey as shown at the figure 1, between 1970 and 2007: FDI net inflows increased substantially from \$58 million US\$ in 1970 to \$22.195 billion US\$ in 2007.



**Figure 1** Foreign Direct Investment in Turkey in the period of 1970 - 2007

After 1980, Turkey switched to outward – oriented policies for opening the economy with financial liberalization efforts. Financial liberalization attempts was started at the year of 1980 and continued until the year of 1989. Addition to liberalization attempted, Turkey has been continuing a series of social, economic, and institutional transformation with the political objective of EU membership. After 1999, Turkey pursued policies for further opening up the economy with the aim of integrating the country to the European Union. As a result of talks for EU-accession, Turkey has been developing an open economy. Moreover, Turkish governments put in the same

time a stabilization program to strengthening the private sector and in this process FDI plays an important role to enhancing the country's competitiveness in the global economy. Meanwhile, Turkey has performed also a privatization program. After the crisis 2001, government has been put an effort to building a stable and sound financial sector. All these efforts to building a good infrastructure, foreign investors have increasingly been attracted to the country for Greenfield, Private Sector and Property Investments rather than simple Privatization deals. Policy reforms, including the providing a sound macroeconomic environment, substantial economic growth and a well functioning financial system (especially after 2001 crisis, Turkey government put an effort to building a stable financial system) led to a surge of FDI in the Turkey and make it an attractive country for FDI. Therefore, this study aim is to analyze the consequences of these policy reforms which providing a sound macroeconomic environment, substantial economic growth and a well functioning financial system, on FDI inflows to Turkey. To accomplish this goal, lagged of FDI inflows, gross domestic product (GDP), growth rate of GDP, inflation rate, and domestic credit to private sector are used to observe the effects of policy reforms on the FDI. Also, this study used dummies to capture important economic events in the tested period such as financial liberalization and crises episodes, and also, a political instability indicator. In theory, an unstable political environment is not encouraging to FDI inflows. The reason is that important and unexpected modifications of the legal and fiscal environments may considerably change the economic and financial conditions for investment, for example, national elections or government changes. Therefore, the role of the political instability in attracting FDI has been also examined in this study by using a qualitative indicator. This study used the frequency of newly established governments as proxies to political instability. In Turkey, the average government term approximately is one year and five months (i.e. 60 governments in 86 years) despite the normal five years term. This study used the number of new governments as a political instability indicator; because the average government term is so short. But, the last government establishment in the tested period was 59<sup>th</sup> government and it led five year term (2003:M3 to 2007:M8), and at the same time, FDI inflows to Turkey was substantially increased (figure 1). This is given the idea that there might be a relation between FDI inflows and government term.

## **Literature Review**

The determinants of FDI inflows have been widely tested in the literature. For instance, Schneider and Frey (1985) test eighty developing countries and they found that the higher the real per capita of Gross National Product (GNP) and the lower the balance of payment deficit are attracted more FDI. Chakrabarti (2001) tests hundred and thirty five cross-country regression and found that the estimated coefficient of the controversial explanatory variables indicates that a country's openness to trade is more likely to be correlated with its FDI than any other potential explanatory variables studied in the paper; this is followed by its wages, net exports, growth rate, tax, tariffs, and exchange rate (in order of likelihood). Asiedu (2002) tests developing countries and the region of Sub Saharan Africa (SSA), and author found that a higher return on investment and better infrastructure have positive impact on FDI to non SSA, but have no significant impact on FDI to SSA, and openness to trade promotes FDI to SSA and non SSA countries. However, the marginal benefit from increased openness is less for SSA. The finding implied that Africa is different, thereby suggesting that policies that have been successful in other regions may not be equally successful in Africa.

Almost all studies in this literature have concluded that political instability variables are an important factor in the decisions regarding foreign direct investment. If we take the political instability as a financial risk due to the fact that government can suddenly change its policies, this may be the major reason or explanation for some countries suffering from lack of foreign investment. For instance, Lizondo (1990) states the theory and empirical evidence on the determinants of foreign direct investment. These determinants include expected relative rates of return, risk diversification, market size, technological advantage, market failure, oligopolistic rivalry, liquidity, currency strength, political instability, tax policy, and government regulations. Sing and Jun (1995) studies the determinants of foreign direct investment by empirically analyzing various factors – including political risk, business conditions, and macroeconomic variables – that influence direct investment flows to 31 developing countries for the period between 1970-93. They tried to fill a gap in the literature by examining qualitative factors. Using a pooled model of developing countries, they showed that political risk, business operational conditions and exports, especially manufacturing exports, are significant determinants of FDI

flows for countries that have historically attracted high FDI flows. Gastanaga et al. (1998) examine the effects of various policies on foreign direct investment (FDI) flows from the perspective of the “eclectic theory” of international investment, and hence the advantages of foreign ownership, host country location, and internationalization. Host country policies can influence FDI flows primarily through their influence on the advantages of location in the host country. Pooled cross-section and time-series data for 49 less-developed countries (LDCs) over 1970–95 are used to examine the effects of several different types of policy/institutional variables, including corporate tax rates, tariff rates, the degree of openness to international capital flows, exchange rate distortions, contract enforcement, nationalization risk, bureaucratic delay and corruption. Moreover, Lim (2001) indicates that the determinants of market size, infrastructure quality, political/economic stability, and free trade zones are important for FDI, while results are mixed regarding the importance of fiscal incentives, the business/investment climate, labor cost and openness. Busse and Hefeker (2005) explore the linkage between political risk, institutions and foreign direct investment. Their findings show that government stability, basic democratic rights and ensuring law and order are highly significant determinants of foreign investment inflows.

Also, there are some evidences that connect the political instability with financial crises. For example, Mei (1999) shows that political uncertainty could be a major contribution to financial crisis. Mei (1999) found that there is a significant relationship between political uncertainty and financial crisis, and also discovered increased market volatility during political elections. Mei (1999) states the fact that in a democratic system, national elections are major political events for re-distribution of political power, which has important implications for the future political and economic course of a country. Consequently, elections present a major uncertainty to both domestic and foreign investors’ expectations.

The empirical literature on the FDI inflows to Turkey (quantitative and qualitative) analyzes the location determinants of FDI inflows and the factors that drive FDI inflows into Turkish. For example, Tatoglu and Glaister (1998) empirically analyze the factors that have motivated western Multinational Enterprises (MNEs) to engage in FDI in Turkey over substantial period of time. Their findings indicate that the factors are distinctive Ownership, Location, internationalization (OLI) characteristics

of services producing western MNEs compared with goods produced western MNEs in their decision to form equity ventures in Turkey. Loewendahl and Ertugal-Loewendahl (2000) analyze the performance of Turkey in attracting FDI in three dimensions. This paper conclude that Turkey has under-performed in attracting FDI due to the slow pace of privatization and political-institutional obstacles, of which chronic inflation is a manifestation. Structured interviews with global companies also highlighted lack of investment promotion as a major obstacle. Also this study states that while the IMF agreements is increased privatization and reduce inflation, EU membership is vital if Turkey is to successfully compete for foreign investment. Halicioglu (2001) empirically identifies and explains the determinants of FDI inflows into Turkey from geographical point of view for the period span from 1975 to 1999. Their findings indicate that market size is positively affects, but different level of significance within the regions. On the other hand, low labor cost is an important factor for foreign firms to invest in Turkey.

Erdal and Tatoglu (2002) empirically analyze the location determinants of foreign direct investment in Turkey. The study covers the period span from 1980 to 1998 via applying co-integration test. The evidence from this study supports the contention that while Turkey offers several location advantages to foreign investors in terms of market size, infrastructure, openness of the economy and market attractiveness, the lack of exchange rate and economic stability has hindered its efforts to harbor much higher volume of FDI. Deichmann et al. (2003) analyzes the factors governing the location decision of Multinational Firms (MNFs) within Turkey with specific references to policy implications. It is found that agglomeration, depth of local financial markets, human capital, and coastal access dominate location decisions for the aggregate sample of foreign investors in Turkey. Ok (2004) examines the driving factors of FDI in Turkey via a survey analysis of managers and expatriates of firms with foreign capital operating. The result shows that the foreign investors in Turkey regard economic and political instability as the most important barrier and an overwhelming majority of the respondents recommends the establishment of political stability in the country. Alfaro et al. (2006) emphasizes the role of local financial markets in enabling foreign direct investment (FDI) to promote growth through backward linkages. The result shows that an increase in FDI leads to higher growth rates in financially development climates compared to the observed ones in financially poorly developed. Sayek (2007) investigates the factors that influence FDI

inflows, with the objective of identifying bottleneck in the investment climate of Turkey and their influence on FDI inflows. Via applying panel analysis to investigate set of variables as determinants of FDI inflows, the result suggests that the real per capita of GDP is an important determinant of FDI inflows. On the other hand, inflation found not to be a important factor in determining FDI inflows. And finally, social infrastructure is positively contributes to the attraction of FDI inflows. Karagoz (2008) analyzes the factors that driving FDI into Turkey between the period of 1970-2005. This paper summarizes the findings of causality and long-term relationship between FDI inflows and some of macroeconomics variables. It is founded that only the one period lagged values of FDI and trade openness have significant impact on the FDI inflows.

### **Data and Variables**

The empirical analysis contains annual data from the period 1970 to 2007 for Turkey. This data is used as an attempt to explain the linkage between Foreign Direct Investment (FDI) with the macroeconomic variables and the dummy variables that are capturing the effects of financial liberalization, political instability and crises. The depended variable is the FDI net inflows as a share of GDP. The independent variables are the lagged of depended variable ( $FDI_{t-1}$ ), natural logarithms of Gross Domestic Product (GDP), lagged of Growth rate of GDP ( $GROWTH_{t-1}$ ), rate of inflation and domestic credits to private sector as a share of GDP (Financial Development). The dummy indicators are crises periods, the frequency of newly established governments and financial liberalization dates. As explain before, this study purpose is to investigate whether the surge in FDI inflows affected by the last policy reforms of providing sound macroeconomic environment, substantial economic growth and well-functioning financial system of Turkey. For this reason market size (GDP), economic growth (Growth rate), macroeconomic stability (rate of inflation) and financial development (domestic credits to private sector) indicators are used in empirical analysis. Information on macroeconomic variables is taken from The World Development Indicators (WDI) at World Bank. The World Bank has provided information on those variables some of which started from 1960 and 1970 up to 2007. Because of the variation in the availability of data, our period is ranked from 1970 up to 2007. The history of government establishment dates as obtained from the Turkish Prime Minister's office's web site, are converted to dummy variables



(“1” represents one or more changes in government during that year and “0” represents a continuing government throughout the year). The new establishment dates are used as political instability indicators, because if we checked the history of establishments we can easily see that the government’s periods are short compared with the five years normal government term. The other dummy variable represents the crises periods in Turkey. During the period of 1970 to 2007, there are two crises periods which are 1994 and 2000 (“1” represents one or more crises took place during that year and “0” represents that there is no crises throughout the year). The last dummy variable represents financial liberalization dates and these dates are the year of 1980 and the year of 1989.

It is generally accepted that foreign investors are typically risk averse and tend to avoid unfamiliar territories. Therefore, it is important for the host countries to establish a track record of FDI inflows in the past, which can help dismiss the foreign investor’s fear of investing in an unknown location. Lagged of the FDI inflows as an explanatory variable, should contribute positively toward the current level of FDI inflows. In the literature, the empirical relationship between GDP and FDI inflows is well documented. Schnieder and Frey (1985) and, Singh and Jun (1995) found a positive relationship between FDI inflows and GDP as a market size proxy. The higher domestic income and higher growth rates implies a greater demand for goods and services, and therefore, make the host country more attractive for FDI. Also, the growth of market size has been widely supported in the theoretical and empirical literature as a determinant of FDI. A large and growing market, other thing equal, will attract foreign investment because of the likelihood that a large market will make possible an efficient scale of production through the realization of economies of scale. Naturally, the use of lagged growth rate could suggest reversal causality. It is assumed that, FDI in the year  $t$  cause a growth in the year  $t+1$ . Consequently, FDI in the year  $t-2$  cause a growth in the year  $t-1$ . Therefore, the lagged value of growth indicates the absorption effectiveness in the host country, in which lead to attract more FDI inflows. As a result, the lagged of growth should contribute positively toward current level of FDI inflows. Inflation rate is common proxy of the overall economic stability of the economy. The high rate of inflation is a sign of macroeconomic instability and of the inability or unwillingness of the government and central bank to balance the budget and restrict money supply. The inflation rate therefore contributes negatively

toward the FDI inflows. Levine et al. (2000) measures the financial development with the private credits, equals the value of credits by financial intermediaries to the private sector divided by GDP. Therefore, the same indicator is used in this study to observe the improvements in both quantity of funds that are available for intermediation by the system, and the allocate efficiency of markets and intermediaries in placing fund with borrowers.

### **Empirical Results**

The models are estimated by OLS techniques shown in Table 1. In the first model, the macroeconomic variables are tested. In line with the past studies, the size of domestic market is positively related to foreign direct investment inflows. When the size of the host country's market increases, it is creating more opportunities for foreign investors and also increasing the number of potential customers. The lagged of FDI and growth rate as expected, are found positively related with FDI inflows. Lagged of FDI has the highest coefficient which is 0.6650 and based on this result, most effected variable is lagged of FDI inflows. The second one is the size of market. Also, lagged of growth rate is found statistically significant variable to explain the variation in the volume of FDI inflows. It is revealed that the growth rate of year  $t-1$  give a positive sign for foreign investors in the current year of  $t$ . The other variables of inflation rate and financial development are found statistically insignificant in the model 1. But the signs of these variables are matched with the expected signs.

In the models 2 and 3, two dummy variables are added to the macroeconomic variables. In the models 2, two dummy variables are found significant explanatory variables, and their coefficients' signs are matched with the expected sings. Political instability has a negative relation with FDI inflows and financial liberalization has a positive effect on the FDI inflows. In the model 3, financial development variable is omitted from the regression model, because in the model two it was statistically insignificant. In model two, we couldn't observe the effect of financial development on the FDI inflows. It can be thought that the level of financial development is not high enough to attract more FDI inflows into Turkey. After omitting the variable of financial development, the values of adjusted  $R^2$  and the coefficients of significant variables are slightly increased. In the last model, the dummy of crises episodes is added to the third model. The dummy variable of the crises episodes is found

negatively related to FDI inflows, but it is statistically insignificant. This is providing evidence that FDI inflows as a form of a capital flows are more stable in the crises episodes. From the table 1, Model 3 appears to have the best results for reporting the relationship between FDI inflows and proposed variables.

**Table 1.** Regresion Results

<b>VARIABLES</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
Intercept	-8.7789 (-2.9145)***	-8.1690 (-2.7490)**	-7.5219 (-2.6237)**	-7.5263 (-2.5809)**
FDIP <sub>t-1</sub>	0.6650 (4.1589)***	0.6721 (4.3996)***	0.7314 (5.3620)***	0.7315 (5.2728)***
log GDP	0.3460 (2.9243)***	0.3201 (2.7542)**	0.3104 (2.6941)**	0.3107 (2.6501)**
Growth <sub>t-1</sub>	0.0384 (1.9010)*	0.0366 (1.9506)*	0.0444 (2.6975)**	0.0443 (2.6202)**
Inflation	-0.0042 (-1.5135)	-0.0054 (-1.9843)*	-0.0054 (-2.0017)*	-0.0054 (-1.8772)*
Domestic Credit	0.0112 (0.3878)	0.0239 (0.8751)		
DUMMY 1 (Pol. Inst.)		-0.2935 (-2.1395)**	-0.2817 (-2.0718)**	-0.2845 (1.8137)*
DUMMY 2 (Fin. Lib.)		0.6263 (1.9840)*	0.5794 (1.8698)*	0.5764 (1.8137)*
DUMMY 3 (Crises)				-0.0236 (-0.0754)
R- squared	0.7907	0.8326	0.8281	0.8282
Adj. R-squared	0.7569	0.7921	0.7938	0.7867
Number of Obs.	37	37	37	37
F statistics	23.4209	20.5997	24.0934	19.9678
D-W	1.9080	2.0522	2.0472	2.0332

Note: “\*”, “\*\*”, “\*\*\*” signs indicate that the variables are statistically significant at 10 percent, 5 percent and 1 percent, respectively. Also, the necessary diagnostic tests are applied to all models – namely, autocorrelation, serial correlation, heteroskedasticity and linearity tests.

## CONCLUSION

Foreign direct investments are the most important form of capital inflows to developing countries. These forms of capital flows effects the countries positively and they are not directly related to financial crises. Because of this importance, this study aims to explain the foreign direct investment in Turkey with macroeconomic and dummy indicators. Empirical analysis suggests that the chosen variables have considerable power to do so. The recent policy reforms of providing a sound macroeconomic environment, substantial economic growth and a well functioning financial system are tested with the macroeconomic variables in this study, therefore,

it can be state that the policy reforms except of financial development have created this recent surge in foreign investment in Turkey. Also, liberalization policies for opening the market have substantial effects on FDI inflows.

Erdal and Tatoglu (2002) state that, in January 2002, the Turkish Government launched a comprehensive program of structural reforms to eliminate double-digit inflation and restructure banking, agriculture, and backward state-owned enterprises. Before this program, macroeconomic instability represented by inflation rate was Turkey's *Achilles heel* for attracting FDI inflows in the past periods. With the recent policy reforms of structural transformation seem improved the macroeconomic stability in the tested period, and as a result, Turkey attracted more FDI in the last decade. Also, it can be observe that political instability has an important effect on FDI inflows. Especially, political instability which is represented new government establishment could be the major reason or explanation for Turkey suffered from lack of foreign investment in 1980s and 1990s. Except the government (59<sup>th</sup> government), the average of government term was approximately one and half year. The 59<sup>th</sup> government led five year term in the tested period. This is explaining why Turkey received substantially large volume of FDI in the last decade. As a summary, this study had found that there are significant relationships between lagged of FDI, log of GDP, lagged of growth rate and inflation rate with FDI, but not with the financial development variable. Also, it is found that dummy variables of financial liberalization dates and political instability have effects on FDI inflows. As expected, the dummy variable of crisis episodes has no effect on FDI inflows. This is given an explanation that there is no relationship between FDI inflows and crisis episodes. Also, it is providing evidence that FDI inflows are more stable in the crisis period regarding to the other type of capital flows. That is why, governments usually prefers FDI inflows. Consequently, based on the findings of this study it can be state that, foreign investors concerns the country's past record of FDI inflows and economic growth. Also, the macroeconomic and the political stability are the other important factors that driving more FDI inflows to Turkey.

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